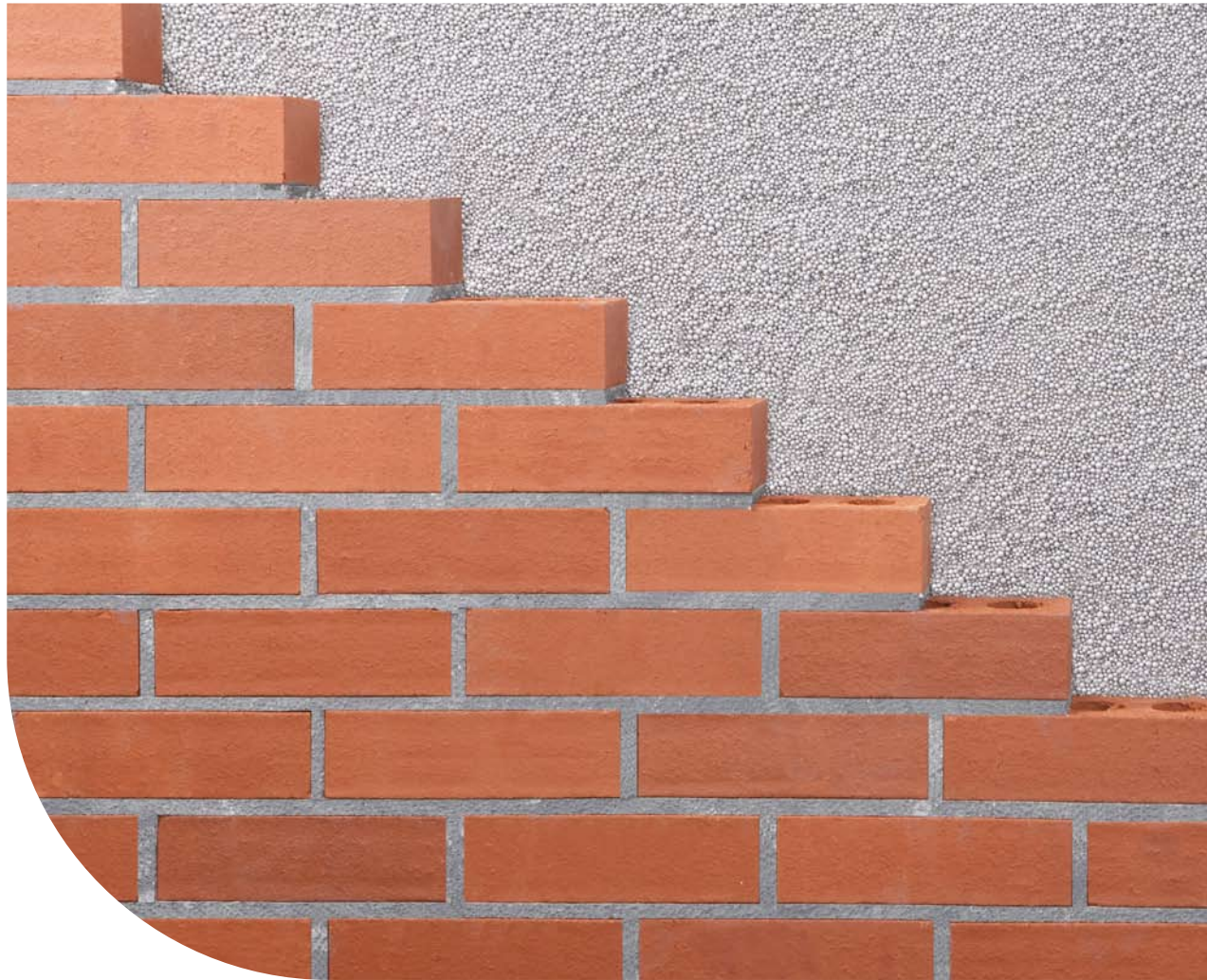




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February 2008



ecobead  *ecobead*  PLATINUM

Injected Full Fill Cavity Wall Insulation System

springvale  TM
sustainable insulation values

It's faster, it's cleaner

It insulates and eliminates waste

EcoBead is a high performance, injected, blown bead EPS insulation system that can be used in domestic, commercial and industrial cavity wall constructions as a full fill insulation solution.

Incredibly fast to install and with no waste, it is just as suitable for new build as it is for improving the thermal performance of existing buildings.

Ecobead is a truly modern method of construction. In new build construction you can build both leaves of a cavity wall right up to the roofline, with no stopping and starting to install the insulant. The insulating bead can be injected at any subsequent stage, speeding construction programmes and reducing costs.

The EPS beads are injected into the wall with a specially designed adhesive and bond together forming a solid mass inside the cavity. The unique flow of bead coupled with its lightness enables the insulant to conform precisely to every fissure of the block and brickwork, producing a complete fill every time. The beads' spherical structure creates tiny air pockets in the insulant once the adhesive has dried.

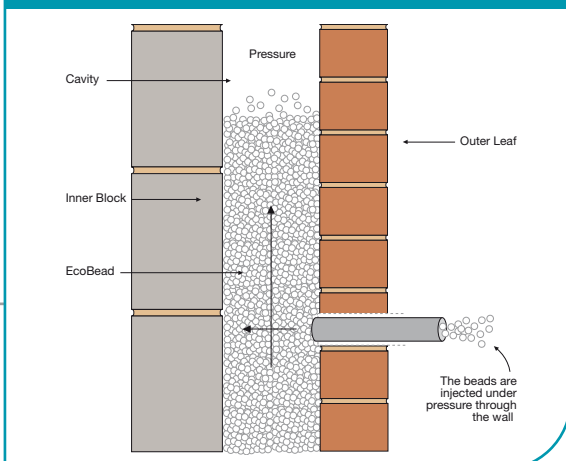
Every bead has a single point of contact with each of the surrounding beads, allowing the cavity to breathe and any moisture penetrating the outer leaf to drain away immediately.

Ecobead is unaffected by flood water ingress where water is free from harmful contaminants. Please contact our technical department for further information.

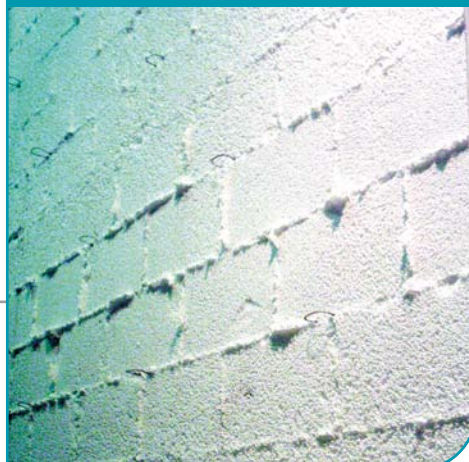
Ecobead is available in original white EPS or as Platinum, to provide even higher insulation values.

Platinum EcoBead is an EPS bead which incorporates a graphite component called Neopor®, manufactured by BASF, to provide significantly improved thermal insulation performance, for example, to achieve higher levels of the Code for Sustainable Homes or just to improve SAP ratings.

Installation

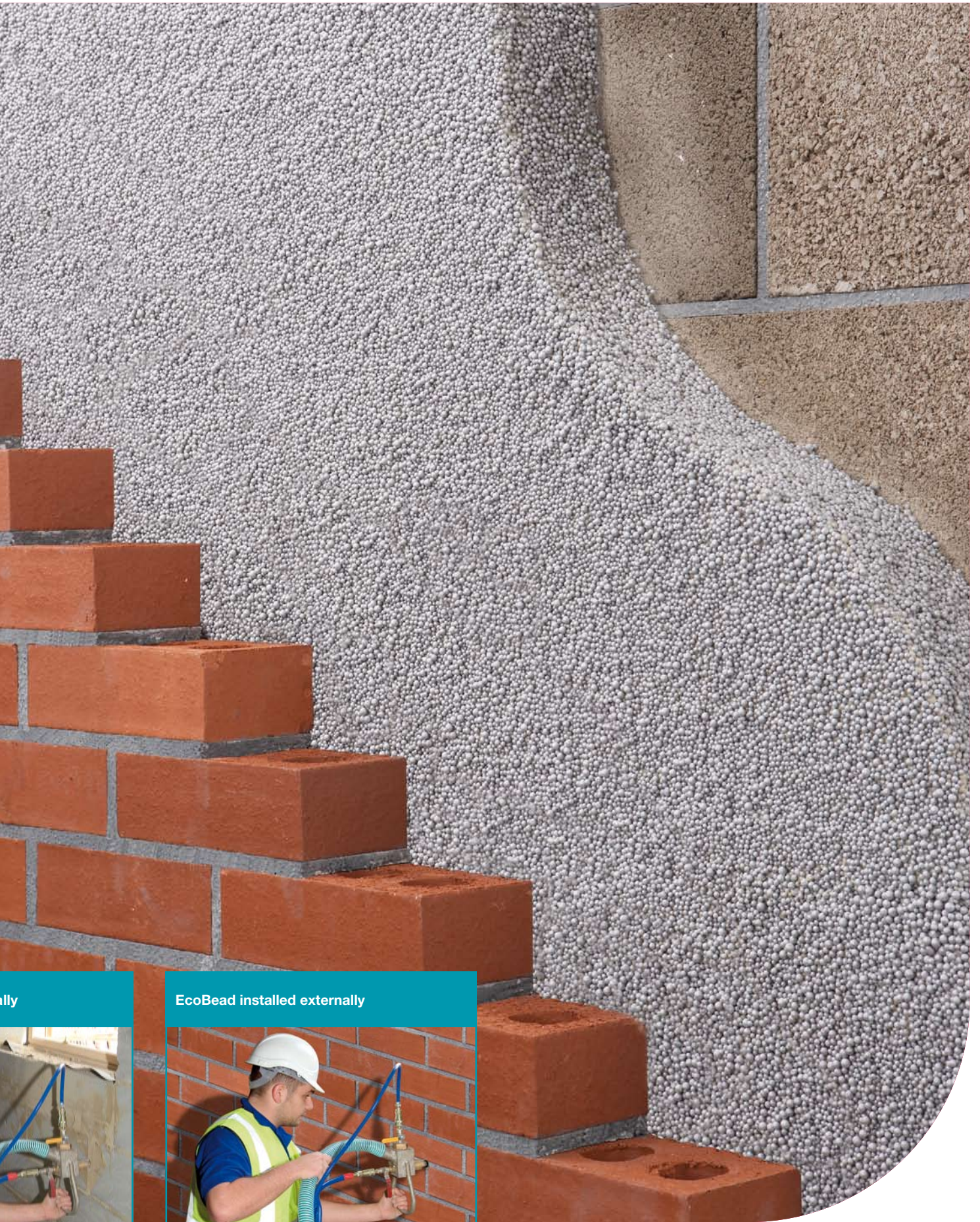


Inspection process during BBA testing with internal wall removed shows how the Ecobead installation process ensures that every part of the cavity is filled



EcoBead installed internally





ally



EcoBead installed externally



Sustainability

The environmental integrity of EcoBead and Platinum EcoBead is exceptional:

- Zero ODP (Ozone Depletion Potential)
- Zero GWP (Global Warming Potential)
- BRE Ecopoints rating of 0.043
- CFC, HFC and HCFC free
- No wastage on site
- Green guide summary 'A' rating
- EcoBead is 100% recyclable

Certification

EcoBead has been awarded BBA certificate No: 04/4167. It is manufactured to the requirements of BS EN 13163:2001 and under an ISO 9001:2000 approved quality management system. The EcoBead system is guaranteed by CIGA in all retro-fit installations.

Thermal Conductivity

EcoBead has a K value of 0.040 W/mK
Platinum EcoBead has a K value of 0.033 W/mK

Durability

The thermal insulation properties of EcoBead and Platinum EcoBead will remain effective for the life of the building. The insulation will not crack nor settle. It is a dimensionally stable, chemically inert product, which is resistant to attack from bacteria, moulds and fungi, and will not provide nutrient value for insects or vermin. It is also non-toxic and non-irritant.

Performance Examples/Retro-fit

The table below shows U-Values for some typical cavity wall constructions before and after **Platinum EcoBead** insulation is installed.

Cavity Wall Construction	Cavity Width	Un-insulated U-value (W/m²K)	Insulated U-Value W/m²K
Brick/Cavity Med Den Block/Plaster	50mm	1.40	0.56
Brick/Cavity Med Den Block/Plaster	60mm	1.40	0.49
Brick/Cavity Brick Plaster	50mm	1.46	0.57
Brick/Cavity Brick/Plaster	60mm	1.46	0.49

Moisture Resistance

Due to the unique design, the system will not transmit water across the cavity.

Fire Performance

When used in a masonry cavity wall a Euroclass B classification can be expected and EcoBead will not prejudice the fire resistant properties of the wall.

Building Regulation Requirements

Changes to Approved Document L were implemented in April 2006. Houses designed to the previous regulations will require radical changes in order to meet the required carbon dioxide emission reductions. A minimum reduction of 20% in CO₂ emissions is required for the whole building.

Guideline U-value for a cavity wall is 0.27 W/m²K. Pre and Post construction SAP calculations are required to ensure compliance. This is a service that Springvale's Technical Department will be delighted to carry out on your behalf. For more information, visit www.sapsonline.co.uk

Availability

EcoBead can be installed by approved installers throughout the UK, subject to a survey assessment.

Installation

All installations are carried out by approved installers offering a supply and fix service. A series of 22mm holes are drilled on either the inside (new build) or outside (retro-fit) leaf of the cavity construction. The system is set into motion and the EPS beads are premixed with adhesive, and injected into the cavity under pressure. When the target pressure is reached, the backpressure causes the system to shut down, so overfilling is avoided. This process is carried out on every injection point from the lowest to the highest. Up to 500m² of cavity walls can be insulated in a single day by one installation vehicle.

For more information, please contact our **Technical Advisory Service**
Tel: 0845 769 7452.

Specification Clause

EcoBead and Platinum EcoBead should be described in specification as:

The wall insulation shall be EcoBead/Platinum EcoBead, ___mm thick, high performance, BBA approved injected insulation system BBA No. 04/4167. Refer to NBS Plus, clause P11 220 (cavity fill) or www.springvale.com for further information.

Performance Examples/New Build

The table below shows typical U-Values (W/m²k) achieved using **Platinum EcoBead** in various Construction types and cavity widths.

External Wall Construction	Cavity Width			
	75mm	80mm	90mm	100mm
12.5mm Plasterboard on Dabs, 100mm AAC Block (λ=0.15) & Brick Outer	0.30	0.29	0.27	0.25
12.5mm Plasterboard on Dabs, 100mm AAC Block (λ=0.19) & Brick Outer	0.31	0.30	0.27	0.25
12.5mm Plasterboard on Dabs, 100mm Medium Density Aggregate Block (λ=0.47) & Brick Outer	0.34	0.32	0.29	0.27
12.5mm Plasterboard on Dabs, 100mm Dense Concrete Block (λ=1.13) & Brick Outer	0.35	0.33	0.30	0.28
12.5mm Plasterboard on Dabs, 100mm Lightweight Block (λ=0.09) & Brick Outer	0.28	0.26	0.24	0.23



Springvale EPS Ltd, Dinting Vale Business Park, Glossop, Derbyshire SK13 6LG
T: 01457 863 211 F: 01457 869 269 E: sales@springvale.com

Technical Advisory Service
T: 0845 769 7452 F: 0845 769 7453 E: technical@springvale.com

www.springvale.com www.sapsonline.co.uk www.ecohomesonline.co.uk

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